

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered). Please AMEND claims, and ADD new claims, in accordance with the following:

1. (CURRENTLY AMENDED) An authentication apparatus comprising:
measuring means for measuring biometric information of an individual;
converting means for carrying out a predetermined conversion process with respect to the biometric information so as to obtain converted biometric information;
extracting means for extracting feature information from the converted biometric information so as to obtain extracted feature, converted biometric information; and
verifying means for verifying the extracted feature, converted biometric information, currently obtained for a specific individual, with respect to ~~registered information~~ extracted feature, converted biometric information of individuals which is was previously obtained and registered in advance, so as to authenticate the specific individual.

2. (ORIGINAL) The authentication apparatus as claimed in claim 1, which further comprises:
input means for inputting parameters used by said converting means for the predetermined conversion process.

3. (PREVIOUSLY AMENDED) The authentication apparatus as claimed in claim 2, wherein said converting means uses personal information related to the individual as the parameters.

4. (PREVIOUSLY AMENDED) The authentication apparatus as claimed in claim 2, wherein said verifying means receives the registered information by a communication which is made via a medium, and said converting means uses an enciphering key which is used for the communication as the parameters used for the predetermined conversion process.

5. (ORIGINAL) The authentication apparatus as claimed in claim 1, wherein the

registered information is prestored in a recording medium, and said verifying means reads the registered information from the recording medium.

6. (ORIGINAL) The authentication apparatus as claimed in claim 5, wherein said measuring means, said converting means, said extracting means and said verifying means are provided in a client computer, and said recording medium is read in the client computer.

7. (ORIGINAL) The authentication apparatus as claimed in claim 5, wherein said measuring means, said converting means, said extracting means and said verifying means are provided in a client computer, and said recording medium is read in a server computer which is coupled to the client computer via a network and the registered information read from the recording medium is supplied to said verifying means in the client computer via the network.

8. (ORIGINAL) The authentication apparatus as claimed in claim 5, wherein said measuring means, said converting means and said extracting means are provided in a client computer, said verifying means is provided in a server computer which is coupled to the client computer via a network, and said recording medium is read in the server computer.

9. (CURRENTLY AMENDED) An authentication apparatus comprising:
measuring means for measuring biometric information of an individual;
extracting means for extracting feature information from the biometric information so as to obtain extracted feature, biometric information;
converting means for carrying out a predetermined conversion process with respect to the extracted feature, biometric information so as to obtain converted and extracted feature biometric information; and
verifying means for verifying ~~the converted~~ and extracted feature, biometric information, currently obtained for a specific individual, with respect to ~~registered information which is converted and extracted feature, biometric information, which was previously obtained and~~ registered in advance, so as to authenticate the specific individual.

10. (ORIGINAL) The authentication apparatus as claimed in claim 9, which further comprises:

input means for inputting parameters used by said converting means for the

predetermined conversion process.

11. (PREVIOUSLY AMENDED) The authentication apparatus as claimed in claim 10, wherein said converting means uses personal information related to the individual as the parameters.

12. (PREVIOUSLY AMENDED) The authentication apparatus as claimed in claim 10, wherein said verifying means receives the registered information by a communication which is made via a medium, and said converting means uses an enciphering key which is used for the communication as the parameters used for the predetermined conversion process.

13. (ORIGINAL) The authentication apparatus as claimed in claim 9, wherein the registered information is prestored in a recording medium, and said verifying means reads the registered information from the recording medium.

14. (ORIGINAL) The authentication apparatus as claimed in claim 13, wherein said measuring means, said extracting means, said converting means and said verifying means are provided in a client computer, and said recording medium is read in the client computer.

15. (ORIGINAL) The authentication apparatus as claimed in claim 13, wherein said measuring means, said extracting means, said converting means and said verifying means are provided in a client computer, and said recording medium is read in a server computer which is coupled to the client computer via a network and the registered information read from the recording medium is supplied to said verifying means in the client computer via the network.

16. (ORIGINAL) The authentication apparatus as claimed in claim 13, wherein said measuring means, said extracting means and said converting means are provided in a client computer, said verifying means is provided in a server computer which is coupled to the client computer via a network, and said recording medium is read in the server computer.

17. (CURRENTLY AMENDED) An authentication apparatus for authenticating an individual by verifying input biometric information with respect to registered biometric information, comprising:

measuring means for measuring biometric information of the individual;

converting means for carrying out a predetermined conversion process, selected from a group consisting of expansion, compression, rotation, deformation, affine transformation, morphing, coordinate transformation, function process, parameter conversion, frequency conversion, time base conversion, and rearrangement of bit sequences, with respect to the measured biometric information so as to obtain converted biometric information;

registering means for registering converted biometric information in advance; and

verifying means for verifying the converted biometric information₁ obtained by said converting means₁ with respect to the converted biometric information registered in said registering means, so as to authenticate the individual.

18. (CURRENTLY AMENDED) An authentication apparatus comprising:

measuring means for measuring biometric information of an individual;

converting means for carrying out a predetermined conversion process with respect to the biometric information so as to obtain converted biometric information;

registering means for registering previously obtained converted biometric information₁ in advance; and

verifying means for verifying the converted biometric information of a specific individual, currently obtained by said converting means₁ with respect to the converted biometric information, previously obtained and registered in advance in said registering means, so as to authenticate the specific individual.

19. (ORIGINAL) A computer-readable storage medium which stores a program for causing a computer to authenticate an individual, comprising:

measuring means for causing the computer to measure biometric information of an individual;

converting means for causing the computer to carry out a predetermined conversion process with respect to the biometric information so as to obtain converted biometric information;

extracting means for causing the computer to extract feature information from the converted biometric information so as to obtain extracted feature, converted biometric information; and

verifying means for causing the computer to verify the currently obtained extracted

feature, converted biometric information for a specific individual with respect to registered extracted feature, converted biometric information which is was previously obtained and registered in advance, so as to authenticate the specific individual.

20. (ORIGINAL) The computer-readable storage medium as claimed in claim 19, which further comprises:

input means for causing the computer to input parameters used by said converting means for the predetermined conversion process.

21. (ORIGINAL) The computer-readable storage medium as claimed in claim 19, wherein said verifying means causes the computer to read the registered information from a recording medium which prestores the registered information.

22. (CURRENTLY AMENDED) A computer-readable storage medium which stores a program for causing a computer to authenticate an individual, comprising:

measuring means for causing the computer to measure biometric information of an individual;

extracting means for causing the computer to extract feature information from the measured biometric information so as to obtain extracted feature information;

converting means for causing the computer to carry out a predetermined conversion process with respect to the extracted feature information so as to obtain converted, extracted feature biometric information; and

verifying means for causing the computer to verify the currently obtained, converted and extracted feature biometric information with respect to ~~registered information which is converted~~ and extracted feature biometric information, previously obtained and registered in advance, so as to authenticate the individual.

23. (ORIGINAL) The computer-readable storage medium as claimed in claim 22, which further comprises:

input means for causing the computer to input parameters used by said converting means for the predetermined conversion process.

24. (ORIGINAL) The computer-readable storage medium as claimed in claim 22,

wherein said verifying means causes the computer to read the registered information from a recording medium which prestores the registered information.

25. (PREVIOUSLY AMENDED) A computer-readable storage medium which stores a program for causing a computer to authenticate an individual by verifying input biometric information with respect to registered biometric information, comprising:

measuring means for causing the computer to measure biometric information of the individual;

converting means for causing the computer to carry out a predetermined conversion process, selected from a group consisting of expansion, compression, rotation, deformation, affine transformation, morphing, coordinate transformation, function process, parameter conversion, frequency conversion, time base conversion, and rearrangement of bit sequences, with respect to the biometric information so as to obtain converted biometric information;

registering means for causing the computer to register the converted biometric information in advance; and

verifying means for causing the computer to verify the converted biometric information obtained by said converting means with respect to the converted biometric information registered by said registering means, so as to authenticate the individual.

26. (CURRENTLY AMENDED) A computer-readable storage medium which stores a program for causing a computer to authenticate an individual, comprising:

measuring means for causing the computer to measure biometric information of an individual;

converting means for causing the computer to carry out a predetermined conversion process with respect to the biometric information so as to obtain converted biometric information;

registering means for causing the computer to register previously obtained, converted biometric information in advance; and

verifying means for causing the computer to verify the converted biometric information of a specific individual, currently obtained by said converting means, with respect to the converted biometric information, previously obtained and registered in advance in said registering means, so as to authenticate the specific individual.

27. (CURRENTLY AMENDED) An authentication apparatus, comprising:
a measuring unit measuring biometric information of an individual;
a converter converting the biometric information and outputting converted biometric information;
an extractor extracting feature information from the converted biometric information and outputting extracted feature, converted biometric information; and
a verifier comparing the converted and extracted feature, converted-feature biometric information, currently obtained for a specific individual, with converted and extracted feature, biometric information which was previously obtained and ~~with registered, corresponding information of the individual, which is registered in advance,~~ to authenticate the specific individual.

28. (CURRENTLY AMENDED) An authentication apparatus comprising:
a measuring unit measuring biometric information of an individual;
an extractor extracting feature information from the biometric information and outputting extracted feature information;
a converter converting the extracted feature information and outputting converted and extracted feature biometric information; and
a verifier comparing the ~~converted, and~~ extracted feature biometric information with ~~registered, corresponding information of the ,~~ currently obtained for a specific individual, which is with respect to converted and extracted feature biometric information, which was previously obtained and registered in advance, to authenticate the specific individual.

29. (CURRENTLY AMENDED) A computer-readable memory medium which stores a program for causing a computer to authenticate an individual, by:
measuring biometric information of an individual;
converting the measured biometric information to produce converted and extracted feature biometric information;
extracting the converted and extracted feature biometric information to produce ~~extracted, converted~~ and extracted feature biometric information; and
comparing the ~~extracted, converted~~ and extracted feature biometric information with ~~registered, corresponding information of the~~ currently obtained for a specific individual, which is with converted and extracted feature information, which was previously obtained and registered

in advance, so as to authenticate the specific individual.

30. (CURRENTLY AMENDED) A computer-readable memory medium which stores a program for causing a computer to authenticate an individual, by:

measuring biometric information of an individual;
extracting feature information from the measured biometric information and producing extracted feature information;
converting the extracted feature information and producing converted and extracted feature biometric information; and
comparing ~~the converted and~~ extracted feature biometric information ~~with registered, corresponding information of the~~ currently obtained for a specific individual, ~~which is with converted and extracted feature biometric information previously obtained and~~ registered in advance, to authenticate the specific individual.

31. (CURRENTLY AMENDED) An authentication method for authenticating an individual by verifying input biometric information with respect to registered biometric information, comprising:

measuring biometric information of ~~the~~ an individual;
carrying out a predetermined conversion process with respect to the measured biometric information so as to obtain converted biometric information;
registering the converted biometric information in advance as registered, converted biometric information; and
verifying ~~the converted biometric information, currently~~ obtained by the predetermined conversion process for a specific individual, with respect to ~~the registered, converted biometric information, previously obtained and registered in advance,~~ so as to authenticate the specific individual.

32. (PREVIOUSLY ADDED) The authentication method as claimed in claim 31, wherein the predetermined conversion process is selected from a group consisting of expansion, compression rotation, deformation, affine transformation, morphing, coordinate transformation, function process, parameter conversion, frequency conversion, time base conversion, and rearrangement of bit sequences.

33. (PREVIOUSLY ADDED) The authentication method as claimed in claim 31, further comprising:

inputting parameters used for the predetermined conversion process.